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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,930	06/12/2000	Stephen W. Farnsworth	00P7677US	3694
26161	7590	11/24/2003	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			LE, KIMLIEN T	
			ART UNIT	PAPER NUMBER
			2653	6

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

11-24-03

# Office Action Summary

Application No.

09/591,930

Applicant(s)

FARNSWORTH ET AL.

Examiner

Kimlien T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
(a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's election of Group I (claims 1-14) in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 15-31 are withdrawn from further consideration. Election was made **without** traverse in Paper No.5.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ahn et al. (U.S. Patent 4,633, 451).

Regarding claim 1, Ahn et al. shows a lensless optical servo system (100) comprising: an unfocused, undiffracted light source ( Fig. 7, element 21. See also column 6, lines 35-65); and plurality of photodetectors (inherent), each photodetector being covered by a geometric pattern filter ( Fig. 7, element 35. See also column 6, lines 35-65; column 1 lines 20-22)

Regarding claim 2, Ahn et al. shows a lensless optical servo system according to

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claim 1 wherein the geometric pattern filter ( Fig. 7, element 35. See also column 6, lines 35-65) is a sinusoidal pattern filter.

Regarding claim 3, Ahn et al. shows a lensless optical servo system (100) according to claim 1 wherein the geometric pattern filter ( Fig. 7, element 35. See also column 6, lines 35-65) is a metalized sinusoidal pattern filter.

Regarding claim 4, Ahn et al. shows a lensless optical servo system (100) according to claim 1 wherein the geometric pattern filter ( Fig. 7, element 35. See also column 6, lines 35-65) is an absorbing sinusoidal pattern filter .

***Allowable Subject Matter***

4. Claims 5-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance:

In claim 5, the limitation of a lensless optical servo system according to claim 2 wherein the plurality of photodetectors includes a first photodetector and a second photodetector , the first photodetector is covered by a first sinusoidal pattern filter and the second photodetector is covered by a second a sinusoidal pattern filter , and the first sinusoidal pattern filter and the second sinusoidal pattern filter are offset from each other by approximately ninety degrees , taken in conjunction with the limitations of claim 9, is not anticipated by, nor made obvious, over the prior art of record.

In claim 6, the limitation of a lensless optical servo system according to claim 2 wherein the plurality of photodetectors includes a first photodetector and a second

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photodetector , the first photodetector is covered by a first sinusoidal pattern filter and the second photodetector is covered by a second a sinusoidal pattern filter, and the first sinusoidal pattern filter and the second sinusoidal pattern filter are offset from each other by approximately one hundred twenty degrees, taken in conjunction with the limitations of claim 9, is not anticipated by, nor made obvious, over the prior art of record.

### *Cited References*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references are all related a lensless optical servo system.

### *Point of Contact*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimlien T Le whose telephone number is 703 305 3498. The examiner can normally be reached on M-F 8a.m-5p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305 6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9314 for regular communications and 703 872 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 3900.

Kimlien Le  
November 17, 2003

  
**TAN DINH**  
**PRIMARY EXAMINER**

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